In the claims:

Please amend Claims 1-13 and 15 with the following rewritten claims:

1 (Amended). An isolated nucleic acid molecule which comprises DNA encoding a polypeptide having at least about 80% sequence identity to: (a) an NS4 polypeptide having the sequence of amino acid residues from about 1 or about 20 to about 87, inclusive, of Figure 2A (SEQ ID NO:4), or (b) the complement of the DNA molecule of (a).

2 (Amended). The isolated nucleic acid molecule of Claim 1 comprising the sequence of nucleotide positions from about 486 or about 543 to about 746, inclusive, of Figure 1A (SEQ ID NO:1).

3 (Amended). The isolated nucleic acid molecule of Claim 1 comprising a nucleotide sequence that encodes the sequence of amino acid residues from about (i) 1 or about 20 to about 87, inclusive, of Figure 2A (SEQ ID NO:4).

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4 (Amended). An isolated nucleic acid molecule comprising DNA encoding a polypeptide having at least about 80% sequence identity to (a) the same mature polypeptide encoded by the human cDNA deposited with the ATCC on May 15, 2001 under ATCC Deposit No. PTA-3376 (DNA146649-1789R1), or (b) the complement of the DNA molecule of (a).

5 (Amended). The isolated nucleic acid molecule of Claim 4 comprising (a) DNA encoding the same mature polypeptide encoded by the human cDNA deposited with the ATCC on May 15, 2001 under ATCC Deposit No. PTA-3376 (DNA146649-1789R1), or (b) the complement of the DNA molecule of (a).

6 (Amended). An isolated nucleic acid molecule comprising DNA having at least about 80% nucleic acid sequence identity to the coding sequence of the human cDNA deposited with

the ATTC on: (a) May 15, 2001 under ATCC Deposit No. PTA-3376 (DNA146649-1789R1), or (b) the complement of the DNA molecule of (a).

7 (Amended). The isolated nucleic acid molecule of Claim 6 comprising the coding sequence of the human protein cDNA deposited with the ATCC on: (a) May 15, 2001 under ATCC Deposit No. PTA-3376 (DNA146649-1789R1), or (b) the complement of the DNA molecule of (a).

8 (Amended). An isolated nucleic acid molecule encoding a NS4 polypeptide comprising DNA that hybridizes under at least moderately stringent conditions to the complement of the nucleic acid sequence that encodes amino acids 1 or about 20 to about 87, inclusive, of Figure 2A (SEQ ID NO:4), wherein the hybridization occurs in the presence of 20% formamide, 5 x SSC (150 mM NaCl, 15 mM trisodium citrate), 50 mM sodium phosphate (pH 7.6), 5 x Denhardt's solution, 10% dextran sulfate, and 20 μg/ml denatured sheared salmon sperm DNA, followed by washing the filters in 1 x SSC at about 37°C-50°C.

9 (Amended). The isolated nucleic acid molecule of Claim 8, wherein the nucleic acid comprises a sequence of nucleotides complementary to 486 or about 543 to about 746, inclusive, of Figure 1A (SEQ ID NO:1).

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10 (Amended). The isolated nucleic acid molecule of Claim 9, wherein the hybridization occurs under stringent hybridization and wash conditions, wherein the hybridization occurs in the presence of 50% formamide, 5 x SSC (0.75 M NaCl, 0.075 M sodium citrate), 50 mM sodium phosphate (pH 6.8), 0.1% sodium pyrophosphate, 5 x Denhardt's solution, sonicated salmon sperm DNA (50 μg/ml), 0.1% SDS and 10% dextran sulfate at 42°C, with washes at 42°C in 0.2 x SSC (sodium chloride/sodium citrate) and 50% formamide at 55°C, followed by a high-stringency wash consisting of 0.1 x SSC containing EDTA at 55°C.

11 (Amended). An isolated nucleic acid molecule comprising at least 31

nucleotides and which is produced by hybridizing a test DNA molecule under stringent hybridization conditions with (a) a DNA molecule which encodes a NS4 polypeptide comprising a sequence of amino acid residues from about 1 or about 20 to about 87, inclusive, of Figure 2A (SEQ ID NO:4), or (b) the complement of the DNA molecule of (a), and isolating the test DNA molecule.

12 (Amended). The isolated nucleic acid molecule of Claim 11, which has at least about 80% sequence identity to (a) or (b).

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13 (Amended). A vector comprising the nucleic acid molecule of subclaim (a) of Claim 1.

14. (Reiterated) The vector of Claim 13, wherein said nucleic acid molecule is operably linked to control sequences recognized by a host cell transformed with the vector.

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15 (Amended). A nucleic acid molecule deposited with the ATCC under accession number PTA-3376 (DNA146649-1789R1).

16. (Reiterated) A host cell comprising the vector of Claim 13.

17. (Reiterated) The host cell of Claim 16, wherein said cell is selected from the group consisting of a CHO, *E. coli* and yeast.

18. (Reiterated) A process for producing a NS4 polypeptide comprising culturing the host cell of Claim 17 under conditions suitable for expression of said NS4 polypeptide and recovering said NS4 polypeptide.

Support for the claim amendment additions appears at least as follows:
Claims 1 and 4: page 11, lines 25-37 and page 12, line 24 through page 13, line 9.

Claim 8: page 17, lines 14-19.

Claim 10: page 17, lines 3-11.